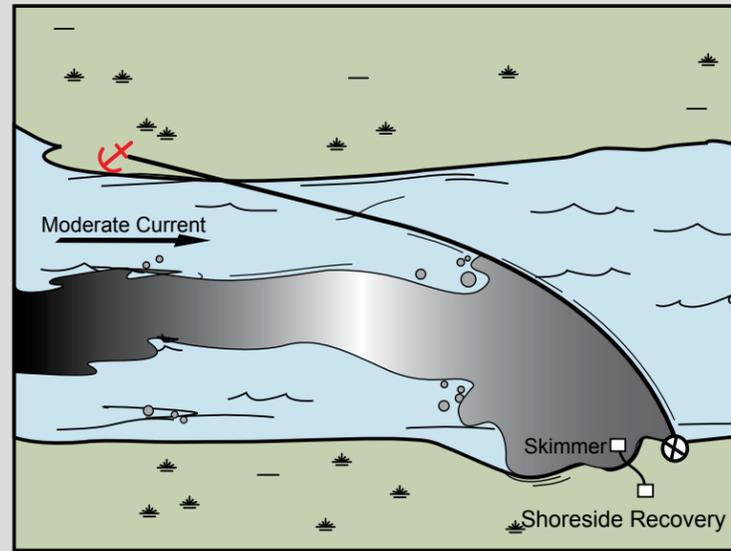


# Kivalina River/Wulik River, NWA-N04

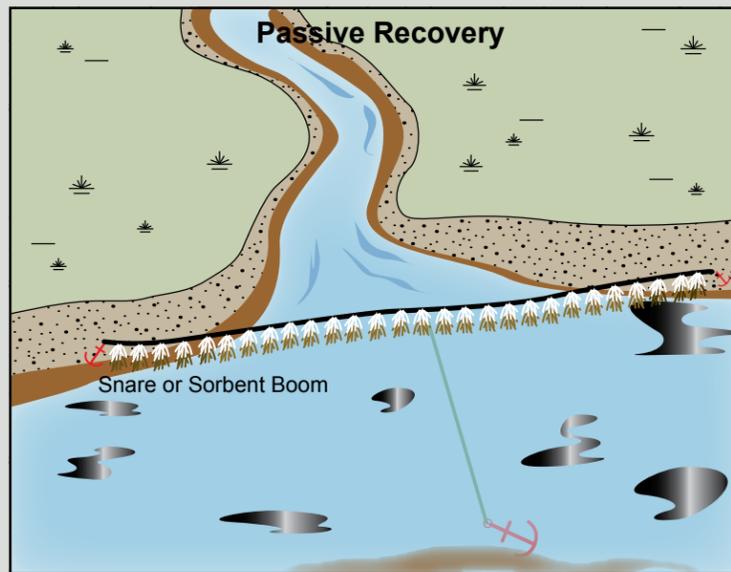
Center of map at 67° 48'8" N Lat., 164° 89'55" W Lon.



## Geographic Response Strategies for Northwest Arctic Subarea, Northern Zone



An example of the *Diversion Booming Tactic*. Actual deployment should be adjusted for local conditions.

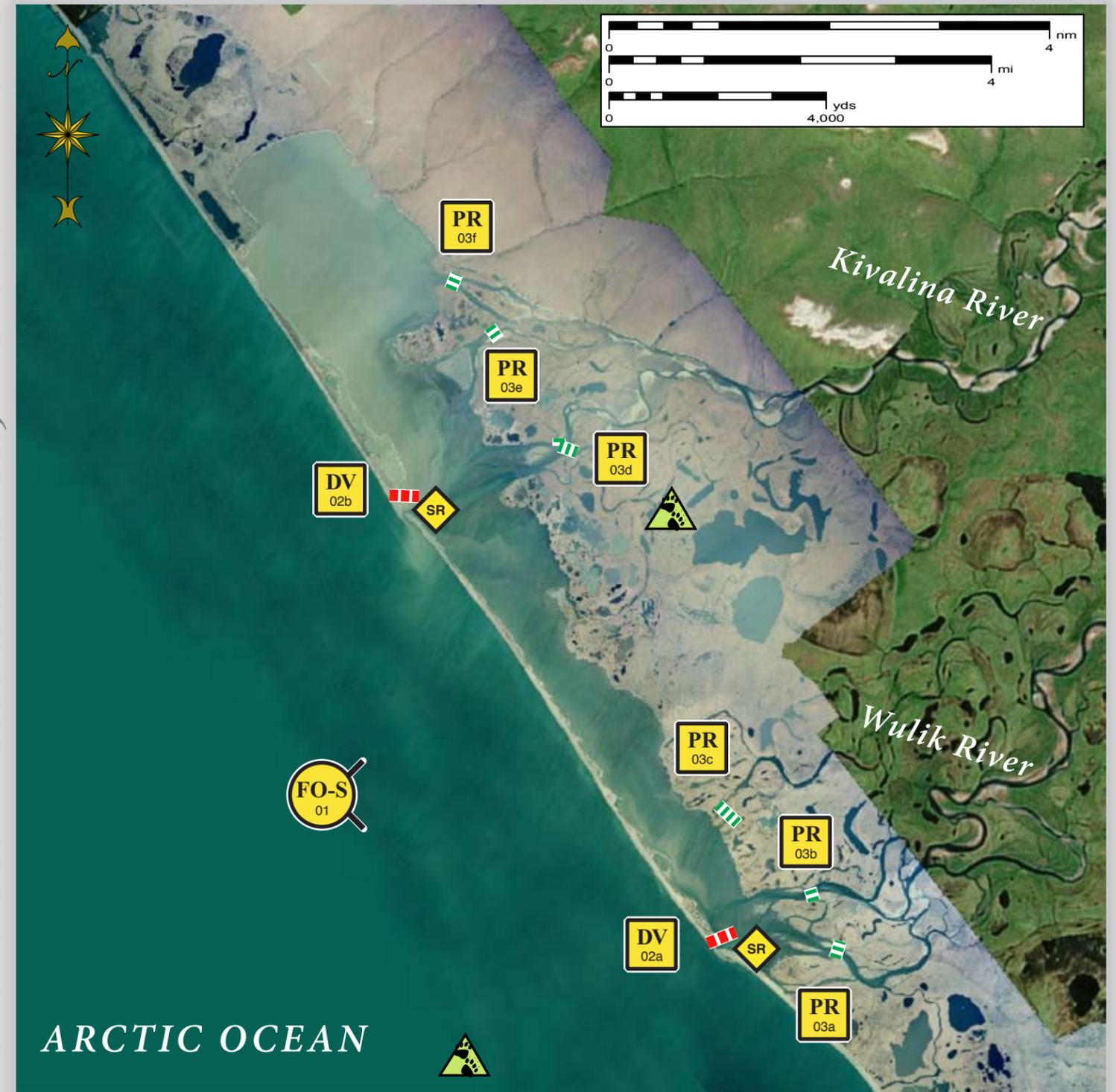


An example of the *Passive Recovery Tactic*. Actual deployment should be adjusted for local conditions.

**Map Legend**

	Free-oil Recovery		Protected-water Boom
	Diversion Booming		Snare or Sorbent Boom
	Passive Recovery		Bears in Area, Guards Recommended
	Shoreside Recovery		

Aerial photography of this area is unavailable at this time, but may be included as it becomes available.



This is not intended for navigational use.

ID	Location and Description	Response Strategy	Implementation	Response Resources	Staging Area	Site Access	Resources Protected (months)	Special Considerations
N-04-01 	<b>Kivalina Lagoon</b> Nearshore waters in the general area of:  Lat. 67° 48.13'N Lon. 164°39.91'W	<b>Free-oil Recovery</b> Maximize free-oil recovery in the offshore & nearshore environment of Kivalina Lagoon depending on spill location and trajectory.	Deploy free-oil recovery strike teams upwind and up current of Kivalina Lagoon.  Use aerial surveillance to locate incoming slicks.	Deploy multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.	Kivalina	Via marine waters  Chart 16005	Same as N-04-02	Vessel master should have local knowledge.  Use extreme caution, shoal waters with numerous reefs and rocks.
N-04-02 	<b>Kivalina Lagoon Entrance</b> a. Lat. 67° 43.44'N Lon. 164°31.77'W  b. Lat. 67° 46.88 N Lon. 164°40.74 W	<b>Divert and Collect</b> Divert oil to shore-side collection points determined by spill source and trajectory.  The entrance to the lagoon may change seasonally and large storms may open the lagoon in other areas on the barrier beach. Aerial survey recommended prior to deployment.	Deploy anchors and boom with skiffs (class 6).  Place protected-water boom at proper angle to divert incoming oil to the collection site.  Set-up collection site using shore-side collection units or if oil volume is minimal, use sorbent boom or snare line to provide collection of oil.  Tend throughout the tide.  <u>Boom Lengths:</u>  a. 500 ft.  b. 450 ft.	<b>Deployment Equipment</b> 950 ft. protected-water boom 6 ea. anchor systems 8 ea. anchor stakes 2 ea. shore-side collection units <b>Vessels</b> 1 ea. class 3 1 ea. class 6 <b>Personnel/Shift</b> 5 ea. vessel crew 2 ea. response techs <b>Tending Vessels</b> 1 ea. class 3 1 ea. class 6 <b>Personnel/Shift</b> 3 ea. vessel crew 2 ea. response tech	Kivalina	Via marine waters  Chart 16005	Fish- herring spawning, chinook, coho, chum, pink, sockeye salmon  Birds- waterfowl concentration, shorebird concentration  Marine mammals- polar bears  Habitat- low lying tundra, marsh, sheltered tidal flats	Vessel master should have local knowledge.  Consider damming of lagoon entrance with heavy equipment as possible Exclusion tactic.  FOSC Historic Properties Specialist should MONITOR on-site operations.  Take appropriate measures as outlined in the STAR Manual to protect the beach at the collection site.
N-04-03 	<b>Kivalina Lagoon</b> a. Lat. 67° 43.33'N Lon. 164°28.30'W  b. Lat. 67° 44.07'N Lon. 164°29.68'W  c. Lat. 67° 44.49'N Lon. 164°32.07'W  d. Lat. 67° 47.51'N Lon. 164°37.50'W  e. Lat. 67° 48.44'N Lon. 164°39.73'W  f. Lat. 67° 48.96'N Lon. 164°40.67'W	<b>Passive Recovery</b> If storms threaten to breach the barrier beach deploy, place passive recovery across the channels of the streams in Kivalina Lagoon.	Access each site via skiff.  Place and anchor snare line or sorbent boom across the channels of streams in Kivalina Lagoon.  Replace as necessary to maximize the recovery.  <u>Boom Length:</u>  a. 450 ft. b. 650 ft. c. 200 ft. d. 1100 ft. e. 400 ft. f. 600 ft.	<b>Deployment Equipment</b> 3400 ft. snare line or sorbent boom 17 ea. anchor systems 24 ea. anchor stakes <b>Vessels/Personnel/Shift</b> Same as N-04-02 <b>Tending Vessels/Personnel/Shift</b> Same as N-04-02	Kivalina	Via marine waters  Chart 16005	Same as N-04-02	Vessel master should have local knowledge.  A population of bears may be present in the area. A bear guard is required during shore operations.  Threatened or endangered species/habitat is present or possible in the area. Consult with NOAA and DOI prior to deployment.  Site surveyed: Not surveyed  Tested: not yet

NOTE: Sensitive resource information can be found on other maps which can be accessed through the sensitive area section of the NWA Sub-Area Contingency Plan: [http://dec.alaska.gov/spar/perp/plans/scp\\_nwa.htm](http://dec.alaska.gov/spar/perp/plans/scp_nwa.htm).